

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
110129.416

APPLICATION NO.

## INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

APPLICANTS  
John Jackson et al.FILING DATE  
October 28, 1998

GROUP ART UNIT



## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Jf	AA	4,826,945	05/02/89	Cohn et al.	528	76	
	AB	5,167,649	12/01/92	Zook	604	307	
	AC	5,278,201	01/11/94	Dunn et al.	523	113	
	AD	5,324,519	06/28/94	Dunn et al.	424	426	
	AE	5,340,849	08/23/94	Dunn et al.	523	113	
	AF	5,384,333	01/24/95	Davis and Cousins	514	772.3	
	AG	5,476,909	12/19/95	Kim and Song	525	408	
	AH	5,525,702	06/11/96	Nace	528	354	
	AI	5,599,552	02/04/97	Dunn et al.	424	423	
	AJ	5,626,863	05/06/97	Hubbell et al.	424	426	
	AK	5,665,428	09/09/97	Cha et al.	427	213.3	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
Jf	AL	WO 94/11411	05/26/94	PCT				
	AM	WO 95/18603	07/13/95	PCT				
	AN	WO 96/14806	05/23/96	PCT				
	AO	CA 2,138,474	06/20/96	Canada				
	AP	WO 97/15287	05/01/97	PCT				

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Jf	AR	Cerrai et al., "Block copolymers of L-lactide and poly(ethylene glycol) for biomedical applications," <i>Journal Of Materials Science: Materials In Medicine</i> 5: 308-313, 1994.
	AS	Hu and Liu, "Effect of soft segment on degradation kinetics in polyethylene glycol/poly(L-lactide) block copolymers," <i>Polymer Bulletin</i> 30: 669-676, 1993.
	AT	Kimura et al., "Preparation of block copoly(ester-ether) comprising poly(L-lactide) and poly(oxypropylene) and degradation of its fibre <i>in vitro</i> and <i>in vivo</i> ," <i>Polymer</i> 30: 1342-1349, 1989.

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
110129.416

APPLICATION NO.

**INFORMATION DISCLOSURE STATEMENT**

(Use several sheets if necessary)

APPLICANTS  
John Jackson et al.FILING DATE  
October 28, 1998

GROUP ART UNIT

JCL35 U.S. PTO  
09/18/98  
10/28/98**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
aj	AA	5,667,809	09/16/97	Trevino et al.	424	501	
z	AB	5,702,717	12/30/97	Cha et al.	424	425	
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

aj	AR	Peracchia et al., "PEG-coated nanospheres from amphiphilic diblock and multiblock copolymers: Investigation of their drug encapsulation and release characteristics," <i>Journal of Controlled Release</i> 46: 223-231, 1997.
1	AS	Shah et al., "Poly-DL-lactic acid: Polyethylene glycol block copolymers. The influence of polyethylene glycol on the degradation of poly-DL-lactic acid," <i>Journal of Biomaterials Science, Polymer Edition</i> 5(5): 421-431, 1994.
7	AT	Zhu et al., "Preparation, Characterization, and Properties of Polylactide (PLA)-Poly(ethylene Glycol) (PEG) Copolymers: A Potential Drug Carrier," <i>Journal of Applied Polymer Science</i> 39: 1-9, 1990.

EXAMINER

DATE CONSIDERED

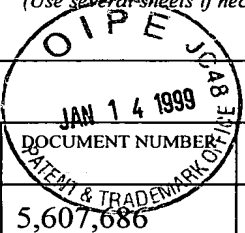


2/01

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449 (REV.7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 110129.416		APPLICATION NO. 09/181,582	
<b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>				APPLICANTS John Jackson et al.			
				FILING DATE October 28, 1998		GROUP ART UNIT 1615	

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	AA	5,607,686	03/04/97	Totakura and Shalaby	424	426	
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						


  

FOREIGN PATENT DOCUMENTS					
DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION		
			YES	NO	
AL					
AM					
AN					
AO					
AP					

OTHER PRIOR ART <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>			
AR			
AS			
AT			

EXAMINER 	DATE CONSIDERED 2/01
---	-------------------------

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).

FORM PTO-1449  
(REV. 7-80)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
110129.416APPLICATION NO.  
09/181,582

**SECOND SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT**

(Include copies of all sheets if necessary)

APPLICANTS  
John Jackson et al.FILING DATE  
October 28, 1998GROUP ART UNIT  
1617**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
af	AA	5,352,515	10/04/94	Jarrett et al.	428	357	
s	AB	4,938,763	07/03/90	Dunn et al.	604	891.1	
g	AC	4,438,253	03/20/84	Casey et al.	528	86	
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
sh	AL	EP 737 703 A2	10/16/96	EPO	—	—		
	AM	EP 241 178 A1	10/14/87	EPO				
	AN	EP 539 741 A1	05/05/93	EPO	1	1		
	AO	EP 537 559 A1	04/21/93	EPO	—	—		
g	AP	WO 90/03768	04/19/90	PCT	—	—		

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR	
	AS	
	AT	

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).



FORM PTO-1449 (REV. 7-80)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 110129.416	APPLICATION NO. 09/181,582
<b>THIRD SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b> <i>(Use several sheets if necessary)</i>		APPLICANTS John Jackson et al.	
		FILING DATE OCTOBER 28, 1998	GROUP ART UNIT 1617

## U.S. PATENT DOCUMENTS

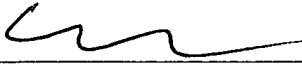
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
W	AA	5,548,035	08/20/96	Kim et al.	525	408	
	AB	5,525,702	06/11/96	Nace	528	354	
	AC	5,490,978	02/13/96	Spaltro et al.	424	49	
	AD	5,278,202	01/11/94	Dunn et al.	523	113	
	AE	4,942,035	07/17/90	Churchill et al.	424	423	
	AF	4,882,168	11/21/89	Casey et al.	424	468	
	AG	4,716,203	12/29/87	Casey et al.	525	408	
	AH	4,526,938	07/02/85	Churchill et al.	525	415	
W	AI	4,452,973	06/05/84	Casey et al.	528	354	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AJ							
	AK							

OTHER PRIOR ART *(Including Author, Title, Date, Pertinent Pages, Etc.)*

W	AL	Bei et al., "Polycaprolactone-Poly (Ethylene Glycol) Block Copolymer III Drug Release Behavior," <i>Chinese J. of Polymer Sci.</i> 13(2): 154-161, 1995.
I	AM	Cohn and Younes, "Biodegradable PEO/PLA block copolymers," <i>J. of Biomed. Mat. Res.</i> , Vol. 22, 993-1009 (1988)
I	AN	Cohn and Younes, "Compositional and Structural Analysis of PELA Biodegradable Block Copolymers Degrading Under <i>In Vitro</i> Conditions," <i>Biomaterials</i> , Vol. 10, 466-474 (Sep. 1989)
W	AO	Deng et al., "Studies on the Block Copolymerization of D,L-Lactide and Poly(ethylene glycol) with Aluminum Complex Catalyst," <i>J. of Applied Polymer Sci.</i> , Vol. 55, 1193-1196 (1995)
	AP	<del>Deng et al., "Synthesis and Characterization of Block Copolymers from D,L-Lactide and Poly(Ethylene Glycol) with Stannous Chloride," <i>J. of Polymer Sci.: Part C: Polymer Letters</i>, Vol. 28, 411-416 (1990)</del>
W	AQ	Gan et al., "Poly(ε-Caprolactone)/Poly(Ethylene Oxide) Diblock Copolymer II. Nonisothermal Crystallization and Melting Behavior," <i>J. of Appl. Polym. Sci.</i> , 1793-1804 (1997)
W	AR	Lyatskaya and Birshtein, "Triblock Copolymers: the Role of Interfacial Tension Coefficients at Two Interfaces," <i>Polymer</i> , Vol. 36, No. 5, 975-980 (1995)

EXAMINER 	DATE CONSIDERED 2/01
<b>* EXAMINER:</b> Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).	

RECEIVED

NOV 27 2000

NOV 30 2000

**THIRD SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT**

(Use several sheets if necessary)

APPLICANTS  
John Jackson et al.FILING DATE  
OCTOBER 28, 1999GROUP ART UNIT  
1617

TECH CENTER 1600/2930

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

as	BA	Martini et al., "The Bioadhesive Properties of a Triblock Copolymer of $\epsilon$ -Caprolactone and Ethylene Oxide," <i>Intl. J. of Pharmaceutics</i> , Vol. 113, 223-229 (1995)
	BB	Martini et al., "The Release of 5-Fluorouracil from a Swellable Matrix of a Triblock Copolymer of $\epsilon$ -Caprolactone and Ethylene Oxide," <i>Pharmaceutical Research</i> , Vol.12, No.11, 1786-1790 (1995)
	BC	Moghimi et al., "Surface Engineered Nanospheres with Enhanced Drainage into Lymphatics and Uptake by Macrophages of the Regional Lymph Nodes," <i>FEBS Letters</i> 344, 25-30 (1994)
	BD	Nojima et al., "Crystallization of Block Copolymers II. Morphological Study of Poly(ethylene glycol)-Poly( $\epsilon$ -caprolactone) Block Copolymers," <i>Polymer J.</i> , Vol.24, No.11, 1271-1280 (1992)
	BE	Pechar et al., "Biodegradable Drug Carriers Based on Poly(ethylene glycol) Block Copolymers," <i>Macromol. Chem. Phys</i> 198:1009-1020 (1997)
	BF	Peracchia et al., "PEG-Coated Nanospheres from Amphiphilic Diblock and Multiblock Copolymers: Investigation of Their Drug Encapsulation and Release Characteristics" <i>J. Controlled Release</i> 46: 223-231, 1997.
cy	BG	Wang and Qui., "Polycaprolactone-Poly(ethylene glycol) Block Copolymer, I: Synthesis and Degradability <i>In Vitro</i> ," <i>Polymers for Adv. Tech.</i> , Vol.4 ,363-366 (1992)
	BH	<del>Youxin et al., "In-Vitro Degradation and Bovine Serum Albumin Release of the ABA Triblock Copolymers Consisting of Poly(L+)Lactic Acid), or Poly(L+)Lactic Acid-Co-Glycolic Acid) A-blocks Attached to Central Polyoxyethylene B-blocks," <i>J. of Controlled Release</i> 32:121-128 (1994)</del>
any	BI	Zhang et al., "Development of Biodegradable Polymeric Paste Formulations for Taxol: An <i>In Vitro</i> and <i>In Vivo</i> Study," <i>Intl. J. of Pharm.</i> , Vol. 137, 199-208 (1996)
m	BJ	Zhu et al., "'Super Microcapsules' (SMC). I. Preparation and Characterization of Star Polyethylene Oxide (PEO)-Polylactide (PLA) Copolymers," <i>Journal of Polymer Science: Part A: Polymer Chemistry</i> , Vol. 27, 2151-2159 (1989)

EXAMINER

DATE CONSIDERED

\* EXAMINER: Initial if reference considered, whether or not criteria is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s).